

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A field-effect transistor comprising:
a gate electrode formed at one side of a base substrate;
a source electrode formed at the one side of the base substrate;
a drain electrode formed at the one side of the base substrate;
an insulation layer formed between the gate electrode and the source electrode and between the gate electrode and the drain electrode;
a semiconductor layer formed around the source electrode and the drain electrode; and
a functional layer provided so as to come into contact with the semiconductor layer and containing electron acceptors, said functional layer being arranged between said semiconductor layer and said insulating layer,
wherein the electron acceptor is a π -conjugate molecule composed of an ethylene molecule or a π -conjugate structure whose carbon number is 3 to 15 to which at least one group of -CN, -NO₂, -F, -Cl, -Br, -I, and =O is linked.
2. (Original) The field-effect transistor according to claim 1, wherein the electron acceptor has a half-wave reduction potential of -0.46 V or higher.
3. (Canceled)
4. (Currently Amended) The field-effect transistor according to claim 3, wherein the π -conjugate structure has a carbon number of 3 to 15 and in which a heterocycle including an S atom as a heteroatom is formed.
5. (Original) The field-effect transistor according to claim 1, wherein the thickness of the functional layer is 0.5 to 500 nm.

6. (Original) The field-effect transistor according to claim 1, wherein the functional layer satisfies the following expression (1);

$$d2 \times 0.001 \leq d1 \leq d2 \times 1 \cdots (1)$$

where d1 denotes the thickness of the functional layer and d2 denotes the thickness of the insulation layer.

7. (Currently Amended) ~~The field-effect transistor according to claim 1, A field-effect transistor comprising:~~

_____ a gate electrode formed at one side of a base substrate;

_____ a source electrode formed at the one side of the base substrate;

_____ a drain electrode formed at the one side of the base substrate;

_____ an insulation layer formed between the gate electrode and the source electrode and between the gate electrode and the drain electrode;

_____ a semiconductor layer formed around the source electrode and the drain electrode; and

_____ a functional layer provided so as to come into contact with the semiconductor layer and containing electron acceptors, wherein the concentration of the electron acceptors contained in the functional layer is 0.01 to 10 mass%.